

Board Assembly Part Number(s)

Part Number	Description
190976D-02L or later	PCI-7342
190976D-04L or later	PCI-7344
190977J-02L or later	PXI-7342
190977J-04L or later	PXI-7344

Manufacturer: National Instruments

Volatile Memory

Type	Size	User Accessible/ System Accessible ¹	Battery Backup?	Purpose	Method of Clearing ²
FPGA	24,000 Gates	No/Yes	No	Encoder Decoder	Cycle power
FPGA	16,000 Gates	No/Yes	No	Step/Dir Signals	Cycle Power
FPGA	16,000 Gates	No/Yes	No	Microprocessor to Host Interface	Cycle Power
SRAM	512 KB	Yes/Yes	No	Used by the microprocessor. Also stores onboard variables which are user accessible	Cycle Power
SRAM	80 KB	No/Yes	No	Integrated RAM for DSP	Cycle Power

Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
EEPROM	8 KB	No/Yes	No	PCI Configuration	None available to user
Flash	1 MB	Yes/Yes	No	Stores onboard programs, FPGA bitstreams, DSP initialization, microprocessor boot image, buffers, and user defaults. The user can modify the onboard programs, buffers, and user default values	Flash memory pointers can be cleared by using the memory management function or by using MAX. The flash is not actually cleared, but it is not accessible from any API.

Media Storage

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
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NONE

¹ Items are designated **No** for the following reason(s):

- a) Hardware changes or a unique software tool from National Instruments are required to modify contents of the memory listed.
- b) Hardware-modifying software tools are not distributed to customers for any personal access or customization, also known as non-normal use.

² The designation *None Available to User* indicates that the ability to clear this memory is not available to the user under normal operation. The utilities required to clear the memory are not distributed by National Instruments to customers for normal use.

Terms and Definitions

User Accessible Allows the user to directly write or modify the contents of the memory during normal instrument operation.

System Accessible Does not allow the user to access or modify the memory during normal instrument operation. However, system accessible memory may be accessed or modified by background processes. This can be something that is not deliberate by the user and can be a background driver implementation, such as storing application information in RAM to increase speed of use.

Cycle Power The process of completely removing power from the device and its components. This process includes a complete shutdown of the PC and/or chassis containing the device; a reboot is not sufficient for the completion of this process.

Volatile Memory Requires power to maintain the stored information. When power is removed from this memory, its contents are lost.

Non-Volatile Retains its contents when power is removed. This type of memory typically contains calibration or chip configuration information, such as power up states.